

NEW SPECIES OF NEOPASITES WITH NOTES
CONCERNING OTHERS (HYMEN-
OPTERA, NOMADIDÆ)

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Since the publication of a revision of this genus,¹ I have had the privilege of studying additional material through the kindness of Mr. J. N. Knull, Mr. P. H. Timberlake, and Prof. O. A. Stevens. The present paper includes the results of this study.

Neopasites elegans Linsley, new species

FEMALE: Form very robust; color black; abdomen deep red throughout; integument densely, coarsely punctate, moderately dull. *Head* very densely punctate, with a large patch of dense appressed white hairs around the antennal bases, a large white patch behind each eye, the two connected posteriorly along the posterior margin of the head and the latter by a narrow median line from the vertex, through the median ocellus to the antennal white patch; antennæ very dark brown, first flagellar segment about as long as following two together; upper frons and vertex coarsely, contiguously and subcontiguously punctate, punctures of ocell-ocular area at least as large as those of disk of mesoscutum; clypeus densely but more finely punctate; labrum clothed with long, dense white hair at base, surface finely punctate, indistinctly longitudinally carinate for more than two-thirds of its length; mandibles black, apices reddish. *Thorax* coarsely punctate; pronotal collar densely white pubescent, tubercles margined with white; tegulæ very dark piceous; mesoscutum coarsely densely punctate, margins and anterior three-fourths of median line, densely clothed with appressed white hairs; mesoscutellum coarsely, densely punctate, lateral margins and median line densely white pubescent, the mid-line expanded at posterior margin into a subtriangular white patch; metanotum with a white patch on each side; mesepisterna coarsely, very closely, somewhat rugosely punctate, vertical face broadly margined with dense appressed white hairs; mesosternum with disk white pubescent. *Wings* lightly infuscated, veins and stigma brown. *Legs* dark brown; anterior and intermediate femora white pubescent beneath at apex, intermediate and posterior tibiæ with posterior face densely, outer face more thinly, white pubescent. *Abdomen* deep red, without any dark clouding; first tergite with a large, suboval white patch on each side bordering

¹ Linsley, E. G. 1943. A revision of the genus *Neopasites*. Trans. Amer. Ent. Soc., 69: 119-140, fig. 1.

lateral margin of basal concavity, the patches separated by nearly twice their width, basal concavity without white pubescence, tergites two to five with a large oval white patch on basal margin, the pairs separated by about their own diameters and becoming successively larger on succeeding segments except those of the fifth tergite which are smaller, tergites two and three with a latero-basal white patch on each side those of second tergite much smaller than the submedian basal patch, those of third tergite scarcely evident, tergites one to four with a lateral white patch on apical margin, that of fourth tergite small; fifth sternite bilobate, densely punctate, pubescent, apical margin broadly and shallowly emarginate.

Length 5 mm.

Holotype female (collection of Ohio State University) and one paratype, female, from El Paso County, Texas, August 30, 1940, collected by D. J. and J. N. Knull. Two additional paratypes, female, were taken by Mr. and Mrs. Knull in Culberson County, Texas, August 30, 1940. One paratype is deposited in the collection of Mr. P. H. Timberlake, another in the collection of the writer, the third in the collection of Ohio State University.

In my recent key to *Neopasites*, this species would run near *N. calliopsidis* Linsley but it is larger, more robust, with the integument duller and more coarsely and densely punctate, the fifth abdominal sternite more lobate on each side, the disk more densely punctate and hairy, and the apical margin broadly, shallowly emarginate. It further differs in the more extensive white pubescent patches of the head and thorax, the base of the labrum clothed with white hair, a slightly different pubescent pattern on the abdominal tergites, and the absence of white pubescence from the basal abdominal declivity. It is possibly the most beautifully spotted of the known species.

***Neopasites knulli* Linsley, new species**

MALE: Form slender; color black, antennæ, mouthparts, legs, and tegulæ brownish or piceous, abdomen red; integument densely, coarsely punctate, moderately dull. *Head* very densely punctate, with a large patch of appressed white hairs around the antennal bases which is denser along the midline where it extends upward nearly to median ocellus, and a large white patch behind each eye, the two connected posteriorly along posterior margin of head; antennæ brown, distal two-thirds of flagellum reddish, first flagellar segment about as long as following two together; upper frons and vertex coarsely, contiguously and subcontiguously punctate, the punctures of ocellular area a little larger but not quite so dense as those of disk of meso-

scutum; clypeus densely but more finely punctate; labrum with a few long, erect white hairs at base, surface finely punctate, densely so at base, longitudinally carinate for about one-half its length; mandibles reddish, base and apex broadly piceous; ventral surface of head shining, area on each side of gular cavity shining, irregularly punctate, punctures averaging more than one puncture width apart. *Thorax* coarsely, very closely punctate; pronotal collar densely white pubescent, tubercles margined with white; tegulae piceous, margins rufo-testaceous; mesoscutum densely, contiguously and more or less rugosely punctate, anterior and lateral margins and anterior half of median line clothed with traces of white hairs along lateral and posterior margins; metanotum with a white patch on each side; mesepisterna coarsely, closely, somewhat rugosely punctate, vertical face broadly margined with white. *Wings* very lightly infuscated, veins and stigma light brown. *Legs* piceous; anterior and intermediate femora apically white pubescent beneath; anterior and intermediate tibiae thinly, posterior tibiae more densely, white pubescent externally. *Abdomen* red; first tergite with a patch of white on each side bordering lateral margin of basal concavity, the patches separated by nearly twice their width, basal concavity without white pubescence, tergites two to five with a transverse band of white along basal margin extending from each side of middle to lateral margin, the pair on tergite two separated by about half the distance separating the patches on tergite one, those of each succeeding segment separated by about half the distance separating those of the preceding tergite, tergites two to four with a small lateral white patch on apical margin, fifth tergite with an apical fringe of white pubescence, disk faintly clouded with piceous, sixth tergite more distinctly clouded with piceous; pygidial plate ligulate, at least twice as long as broad; sternites coarsely punctate, apical margins fringed with white pubescence, last sternite with apical process truncate.

Length 5 mm.

Holotype male (collection of Ohio State University) from Culberson County, Texas, August 30, 1940, collected by D. J. and J. N. Knull.

This species is superficially very much like *Neopasites* (*Odon-topasites*) *arizonicus* Linsley in size, form, and coloration, but may be distinguished by the naked eyes, less densely punctate ventral surface of the head, especially on each side of gular cavity, the short labral carina, and the darker legs and mouthparts. It appears to be more closely related to *N. (N.) minimus* Linsley, but the latter species is much smaller (3.5 mm.), with only a few scattered punctures on the under side of the head, and the labrum is not carinate.

Neopasites robertsoni Crawford

Among material recently submitted by Prof. O. A. Stevens for study were examples of this species from Hatton, North Dakota, August 3 (Stevens).

Neopasites stevensi (Crawford)

This species was also taken by Prof. Stevens at Hatton, North Dakota, on August 3, visiting flowers of *Grindelia squarrosa*.

Neopasites heliopsis (Robertson)

N. heliopsis was recently recorded¹ from Winnecook, North Dakota. The locality should have read Winnecook, Montana. The record was based on a specimen in the collection of P. H. Timberlake.

Neopasites calliopsidis Linsley

This species has been previously recorded from Iowa, Kansas and Montana. Mr. Timberlake has submitted specimens from the following localities in Colorado: Boulder County, July 6, 1925 (C. H. Hicks); Boulder, June 26 and 28, 1939, on *Chrysopsis* (Timberlake); Boulder, 2 miles north, June 25, 1939, on *Chrysopsis* (Timberlake); and Cuchara Camps, Spanish Peaks, elevation 8000 ft., July 4, 1939, on *Aster* (Timberlake). In these specimens the average extent of the black areas on the abdomen is greater than in the type series (Iowa), and some males also have the basal white spots of the tergites confluent on each side.